

## **PART 228—HOURS OF SERVICE OF RAILROAD EMPLOYEES; RECORDKEEPING AND REPORTING; SLEEPING QUARTERS**

### Subpart E—Safety and Health Requirements for Camp Cars Provided by Railroads as Sleeping Quarters

#### **§228.301 Purpose and scope.**

The purpose of this subpart is to prescribe standards for the design, operation, and maintenance of camp cars that a railroad uses as sleeping quarters for its employees or MOW workers or both so as to protect the safety and health of those employees and MOW workers and give them an opportunity for rest free from the interruptions caused by noise under the control of the railroad, and provide indoor toilet facilities, potable water, and other features to protect the health and safety of the employees and MOW workers.

#### **§228.303 Application and responsibility for compliance.**

(a) This subpart applies to all railroads except the following:

(1) Railroads that operate only on track inside an installation that is not part of the general railroad system of transportation (*i.e.*, plant railroads, as defined in §228.5);

(2) Tourist, scenic, historic, or excursion operations that are not part of the general railroad system of transportation as defined in §228.5; or

(3) Rapid transit operations in an urban area that are not connected to the general railroad system of transportation.

(b) Although the duties imposed by this subpart are generally stated in terms of the duty of a railroad, each person, including a contractor or subcontractor for a railroad, who performs any task or provides camp cars covered by this subpart, shall do so in accordance with this subpart.

#### **§228.305 Compliance date.**

On and after December 30, 2011, a railroad shall not provide a camp car for use as sleeping quarters by an employee or MOW worker unless the camp car complies with all requirements of this subpart.

#### **§228.307 Definitions.**

As used in this subpart—

*dB(A)* means the sound pressure level in decibels measured on the A-weighted scale.

*Decibel (dB)* means a logarithmic unit of measurement that expresses the magnitude of a physical quantity (usually power or intensity) relative to a specified reference level. For the measurement of noise in this subpart, the reference level for the intensity of sound pressure in air is 20 micropascals.

*Foot-candle* means a one lumen of light density per square foot.

*HVAC* means heating, ventilation, and air conditioning.

*Lavatory* means a basin or similar vessel used primarily for washing of the hands, arms, face, and head.

$L_{eq}(8)$  means the equivalent steady state sound level that in 8 hours would contain the same acoustic energy as the time-varying sound level during the same time period.

*Nonwater carriage toilet* means a toilet not connected to a sewer.

*Occupant* means an employee or an MOW worker (both as defined in §228.5) whose sleeping quarters are a camp car.

*Ppm* means parts per million.

*Potable water* means water that meets the quality standards prescribed in the U.S. Environmental Protection Agency's National Primary Drinking Water Standards set forth in 40 CFR part 141.

*Potable water system* means the containers, tanks, and associated plumbing lines and valves that hold, convey, and dispense potable water within a camp car.

*Toilet* means a chemical toilet, a recirculating toilet, a combustion toilet, or a toilet that is flushed with water; however, a urinal is not a toilet.

*Toilet room* means a room containing a toilet.

*Toxic material* means a material in concentration or amount of such toxicity as to constitute a recognized hazard that is causing or is likely to cause death or serious physical harm.

*Watering* means the act of filling potable water systems.

### **§228.309 Structure, emergency egress, lighting, temperature, and noise-level standards.**

(a) *General.* Each camp car must be constructed in a manner that will provide protection against the elements.

(b) *Floors.* Floors must be of smooth and tight construction and must be kept in good repair.

(c) *Windows and other openings.* (1) All camp cars must be provided with windows the total area of which must be not less than 10 percent of the floor area. At least one-half of each window designed to be opened must be so constructed that it can be opened for purposes of ventilation. Durable opaque window coverings must be provided to reduce the entrance of light during sleeping hours.

(2) All exterior openings must be effectively screened with 16-mesh material. All screen doors must be equipped with self-closing devices.

(d) *Steps, entry ways, passageways, and corridors.* All steps, entry ways, passageways, and corridors providing normal entry to or between camp cars must be constructed of durable weather-resistant material and properly maintained. Any broken or unsafe fixtures or components in need of repair must be repaired or replaced promptly.

(e) *Emergency egress.* Each camp car must be constructed in a manner to provide adequate means of egress in an emergency situation. At a minimum, a means of emergency egress must be located in at least two places in camp car for emergency exits.

(f) *Lighting.* Each habitable room in a camp car including but not limited to a toilet room, that is provided to an occupant must be provided with adequate lighting as specified below:

(1) When occupants are present, the pathway to any exit not immediately accessible to occupants, such as through an interior corridor, shall be illuminated at all times to values of at least 1 foot-candle measured at the floor, provided that where the pathway passes through a sleeping compartment, the pathway up to the compartment will be illuminated, but illumination is not required inside the sleeping compartment.

(2) Toilet and shower rooms shall have controlled lighting that will illuminate the room to values of at least 10 foot-candles measured at the floor.

(3) Other areas shall have controlled lighting that will illuminate the room area to values of at least 30 foot-candles measured at the floor.

(g) *Temperature.* Each camp car must be provided with equipment capable of maintaining a temperature of at least 68 degrees Fahrenheit (F.) during cold weather and no greater than 75 degrees F. during hot weather. A temperature of at least 68 degrees F. during cold weather and no greater than 75 degrees F. during hot weather must be maintained within an occupied camp car unless the equipment is individually controlled by its occupant(s).

(h) *Noise control.* Noise levels attributable to noise sources under the control of the railroad shall not exceed an  $L_{eq}(8)$  value of 55 dB(A), with windows and doors closed and exclusive of noise from cooling, heating, and ventilating equipment, for any 480-minute period during which the facility is occupied.

**§228.311 Minimum space requirements, beds, storage, and sanitary facilities.**

(a) Each camp car used for sleeping purposes must contain at least 80 square feet of floor space for each occupant, with a maximum of four occupants per car. At least a 7-foot ceiling, measured at the entrance to the car, must be provided.

(b) A bed, cot, or bunk for each occupant and suitable lockable storage facility, such as a lockable wall locker, or space for a lockable foot locker for each occupant's clothing and personal articles must be provided in every room used for sleeping purposes. Except where partitions are provided, such beds or similar facilities must be spaced not closer than 36 inches laterally (except in rail-mounted modular units, where the beds shall be spaced not closer than 30 inches, and highway trailer units, where the beds shall be spaced not closer than 26 inches) and 30 inches end to end, and must be elevated at least 12 inches from the floor. Multi-deck bunks, multi-deck bunk beds, and multi-deck similar facilities may not be used.

(c) Unless otherwise provided by a collective bargaining agreement, clean linens must be provided to each occupant.

(d) In a camp car where occupants cook, live, and sleep, a minimum of 120 square feet of floor space per occupants must be provided. Sanitary facilities must be provided for storing and preparing food. *See also* §228.325.

**§228.313 Electrical system requirements.**

(a) All heating, cooking, ventilation, air conditioning, and water heating equipment must be installed in accordance with an industry-recognized standard. Upon request by FRA, the railroad must identify the industry-recognized standard that it utilizes and establish its compliance with that standard.

(b) All electrical systems installed, including external electrical supply connections, must be compliant with an industry-recognized standard. Upon request by FRA, the railroad must identify the industry-recognized standard that it utilizes and establish its compliance with that standard.

(c) Each occupied camp car shall be equipped with or serviced by a safe and working HVAC system.

**§228.315 Vermin control.**

Camp cars shall be constructed, equipped, and maintained to prevent the entrance or harborage of rodents, insects, or other vermin. A continuing and effective extermination program shall be instituted where the presence of vermin is detected

### **§228.317 Toilets.**

(a) *Number of toilets provided.* Each individual camp car that provides sleeping facilities must have one room with a functional toilet for a total of one or two occupants, and one additional room with a functional toilet if there are a total of three or four occupants.

(b) *Construction of toilet rooms.* Each toilet room must occupy a separate compartment with a door that latches and have walls or partitions between fixtures sufficient to assure privacy.

(c) *Supplies and sanitation.* (1) An adequate supply of toilet paper must be provided in each toilet room, unless provided to the occupants individually.

(2) Each toilet must be kept in a clean and sanitary condition and cleaned regularly when the camp car is being used. In the case of a non-water carriage toilet facility, it must be cleaned and changed regularly when the camp car is being used.

(d) *Sewage disposal facilities.* (1) All sanitary sewer lines and floor drains from a camp car toilet facility must be connected to a public sewer where available and practical, unless the car is equipped with a holding tank that is emptied in a sanitary manner.

(2) The sewage disposal method must not endanger the health of occupants.

(3) For toilet facilities connected to a holding tank, the tank must be constructed in a manner that prevents vermin from entry and odors from escaping into the camp car.

### **§228.319 Lavatories.**

(a) *Number.* Each camp car that provides a sleeping facility must contain at least one functioning lavatory for a total of one or two occupants and an additional functional lavatory if there is a total of three or four occupants.

(b) *Water.* Each lavatory must be provided with hot and cold potable running water. The water supplied to a lavatory must be from a potable water source supplied through a system maintained as required in §228.323.

(c) *Soap.* Unless otherwise provided by a collective bargaining agreement, hand soap or similar cleansing agents must be provided.

(d) *Means of drying.* Unless otherwise provided by a collective bargaining agreement, individual hand towels, of cloth or paper, warm air blowers, or clean sections of continuous cloth toweling must be provided near the lavatories.

### **§228.321 Showering facilities.**

(a) *Number.* Each individual camp car that provides sleeping facilities must contain a minimum of one shower for a total of one or two occupants and an additional functional shower if the camp car contains a total of three or four occupants.

(b) *Floors.* (1) Shower floors must be constructed of non-slippery materials;

(2) Floor drains must be provided in all shower baths and shower rooms to remove waste water and facilitate cleaning;

(3) All junctions of the curbing and the floor must be sealed; and

(4) There shall be no fixed grate or other instrument on the shower floor significantly hindering the cleaning of the shower floor or drain.

(c) *Walls and partitions.* The walls and partitions of a shower room must be smooth and impervious to the height of splash.

(d) *Water.* An adequate supply of hot and cold running potable water must be provided for showering purposes. The water supplied to a shower must be from a potable water source supplied through a system maintained as required in §228.323.

(e) *Showering necessities.* (1) Unless otherwise provided by a collective bargaining agreement, body soap or other appropriate cleansing agent convenient to the showers must be provided.

(2) Showers must be provided with hot and cold water feeding a common discharge line.

(3) Unless otherwise provided by a collective bargaining agreement, each occupant who uses a shower must be provided with an individual clean towel.

### **§228.323 Potable water.**

(a) *General requirements.* (1) Potable water shall be adequately and conveniently provided to all occupants of a camp car for drinking, personal oral hygiene, washing of person, cooking, washing of foods, washing of cooking or eating utensils, and washing of premises for food preparation or processing.

(2) Open containers such as barrels, pails, or tanks for drinking water from which the water must be dipped or poured, whether or not they are fitted with a cover, are prohibited.

(3) A common drinking cup and other common utensils are prohibited.

(b) *Potable water source.* (1) If potable water is provided in bottled form, it shall be stored in a manner recommended by the supplier in order to prevent contamination in storage. Bottled water

shall not be provided as a substitute for the hot and cold running potable water required to be supplied in lavatories, showers, and sinks under this section. Bottled water shall contain a label identifying the packager and the source of the water.

(2) If potable water is drawn from a local source, the source must meet the drinking water standards established by the U.S. Environmental Protection Agency under 40 CFR part 141, National Primary Drinking Water Regulations.

(3) All equipment and construction used for supplying potable water to a camp car water system (e.g., a hose, nozzle, or back-flow prevention) shall be approved by the Food and Drug Administration.

(4) *Water hydrants.* Each water hydrant, hose, or nozzle used for supplying potable water to a camp car water system shall be inspected prior to use. Each such hose or nozzle used shall be cleaned and sanitized as part of the inspection. A signed, dated record of this inspection shall be kept within the camp for the period of the connection. When the connection is terminated, a copy of each of these records must be submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(5) *Training.* Only a trained individual is permitted to fill the potable water systems. Each individual who fills a potable water system shall be trained in—

(i) The approved method of inspecting, cleaning, and sanitizing hydrants, hoses, and nozzles used for filling potable water systems; and

(ii) The approved procedures to prevent contamination during watering.

(6) *Certification.* Each time that potable water is drawn from a different local source, the railroad shall obtain a certificate from a State or local health authority indicating that the water from this source is of a quality not less than that prescribed in 40 CFR part 141, National Primary Drinking Water Regulations promulgated by the U.S. Environmental Protection Agency, or obtain such a certificate by a certified laboratory following testing for compliance with those standards. The current certification shall be kept within the camp for the duration of the connection. When the connection is terminated, a copy of each of these records must be submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(c) *Storage and distribution system.* (1) *Storage.* Potable water shall be stored in sanitary containers that prevent external contaminants from entering the potable water supply. Such contaminants include biological agents or materials and substances that can alter the taste or color or are toxic.

(2) *Dispensers.* Potable drinking water dispensers shall be designed, constructed, and serviced so that sanitary conditions are maintained, must be capable of being closed, and shall be equipped with a tap.

(3) *Distribution lines.* The distribution lines must be capable of supplying water at sufficient operating pressures to all taps for normal simultaneous operation.

(4) *Flushing.* Each potable water system shall be drained and flushed with a disinfecting solution at least once every 120 days. The railroad shall maintain a record of the draining and flushing of each separate system within the camp for the last two drain and flush cycles. The record shall contain the date of the work and the name(s) of the individual(s) performing the work. The original record shall be maintained with the camp. A copy of each of these records shall be sent to a centralized location for the railroad and maintained for one year.

(i) The solution used for flushing and disinfection shall be a 100 parts per million by volume (ppm) chlorine solution.

(ii) The chlorine solution shall be held for one hour in all parts of the system to ensure disinfection.

(iii) The chlorine solution shall be purged from the system by a complete refilling and draining with fresh potable water.

(iv) The draining and flushing shall be done more frequently if an occupant reports a taste or health problem associated with the water, or following any plumbing repair.

(5) *Reported problems.* Following any report of a taste problem with the water from a system or a health problem resulting from the water in a system, samples of water from each tap or dispensing location on the system shall be collected and sent to a laboratory approved by the U.S. Environmental Protection Agency for testing for heterotrophic plate counts, total coliform, and fecal coliform. If a single sample fails any of these tests, the system must be treated as follows:

(i) Heterotrophic plate count. Drain and flush the system within two days, and then return it to service.

(ii) Total coliform. Remove the system from service, drain and flush system, resample the system, and then return the system to service.

(iii) Fecal coliform. Remove the system from service, drain and flush the system, resample the system, and do not return the system to service until a satisfactory result on the test of the samples is obtained from the laboratory.

(6) *Reports.* All laboratory reports pertaining to the water system of the camp car shall be maintained with the car. Within 15 days of the receipt of such a laboratory report, a copy of the report shall be posted for a minimum of 10 calendar days at a conspicuous location within the camp car or cars affected for review by occupants. The report shall be maintained in the camp for the duration of the same connection. When the connection is terminated, the certification must be



submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(d) *Signage.* Any water outlet/faucet within the camp car facility that supplies water not from a potable source or that is from a potable source but supplied through a system that is not maintained as required in this section, the outlet/faucet must be labeled with a sign, visible to the user and bearing a message to the following effect: “The water is not suitable for human consumption. Do not drink the water.”

### **228.325 Food service in a camp car or separate kitchen or dining facility in a camp.**

(a) *Sanitary storage.* No food or beverage may be stored in a toilet room or in an area exposed to a toxic material.

(b) *Consumption of food or beverage on the premises.* No occupant shall be allowed to consume a food or beverage in a toilet room or in any area exposed to a toxic material.

(c) *Kitchens, dining halls, and feeding facilities.* (1) In each camp car where central dining operations are provided by the railroad or its contractor(s) or subcontractor(s), the food handling facilities shall be maintained in a clean and sanitary condition. See §228.323, Potable water, generally.

(i) All surfaces used for food preparation shall be disinfected after each use.

(ii) The disinfection process shall include removal of chemical disinfectants that would adulterate foods prepared subsequent to disinfection.

(2) All perishable food shall be stored either under refrigeration or in a freezer. Refrigeration and freezer facilities shall be provided with a means to monitor temperature to ensure proper temperatures are maintained. The temperature of refrigerators shall be maintained at 40 °F or below; the temperature of freezers shall be maintained at 0 °F or below at all times.

(3) All non-perishable food shall be stored to prevent vermin and insect infestation.

(4) All food waste disposal containers shall be constructed to prevent vermin and insect infestation.

(i) All food waste disposal containers used within a camp car shall be emptied after each meal, or at least every four hours, whichever period is less.

(ii) All food waste disposal containers used outside a camp car shall be located to prevent offensive odors from entering the sleeping quarters.

(iii) All kitchen area camp car sinks used for food washing and preparation and all kitchen area floor drains shall be connected to a public sewer where available and practicable, unless the car

is equipped with a holding tank that is emptied in a sanitary manner. For kitchen area sinks and floor drains identified in this paragraph (c)(4)(iii) connected to a holding tank, the tank must be constructed in a manner that prevents vermin from entry into the tank or odors from escaping into any camp car.

(iv) The sewage disposal method must not endanger the health of occupants.

(5) When a separate kitchen or dining hall car is provided, there must be a closeable door between the living or sleeping quarters into a kitchen or dining hall car.

(d) *Food handling.* (1) All food service facilities and operations for occupants of a camp car by the railroad or its contractor(s) or subcontractor(s) shall be carried out in accordance with sound hygienic principles. In all places of employment where all or part of the food service is provided, the food dispensed must be wholesome, free from spoilage, and must be processed, prepared, handled, and stored in such a manner as to be protected against contamination. See §228.323, Potable water, generally.

(2) No person with any disease communicable through contact with food or a food preparation item may be employed or permitted to work in the preparation, cooking, serving, or other handling of food, foodstuffs, or a material used therein, in a kitchen or dining facility operated in or in connection with a camp car.

(e) The limitations of paragraphs (c) and (d) of this section do not apply to food service from restaurants near the camp car consist that are subject to State law.

#### **§228.327 Waste collection and disposal.**

(a) *General disposal requirements.* All sweepings, solid or liquid wastes, refuse, and garbage in a camp must be removed in such a manner as to avoid creating a menace to health and as often as necessary or appropriate to maintain a sanitary condition.

(b) *General waste receptacles.* Any exterior receptacle used for putrescible solid or liquid waste or refuse in a camp shall be so constructed that it does not leak and may be thoroughly cleaned and maintained in a sanitary condition. Such a receptacle must be equipped with a solid tight-fitting cover, unless it can be maintained in a sanitary condition without a cover. This requirement does not prohibit the use of receptacles designed to permit the maintenance of a sanitary condition without regard to the aforementioned requirements.

(c) *Food waste disposal containers provided for the interior of camp cars.* An adequate number of receptacles constructed of smooth, corrosion resistant, easily cleanable, or disposable materials, must be provided and used for the disposal of waste food. Receptacles must be provided with a solid, tight-fitting cover unless sanitary conditions can be maintained without use of a cover. The number, size, and location of such receptacles must encourage their use and not result in overfilling. They must be emptied regularly and maintained in a clean, safe, and sanitary condition.

**§228.329 Housekeeping.**

(a) A camp car must be kept clean to the extent allowed by the nature of the work performed by the occupants of the camp car.

(b) To facilitate cleaning, every floor, working place, and passageway must be kept free from protruding nails, splinters, loose boards, and unnecessary holes and openings.

**§228.331 First aid and life safety.**

(a) An adequate first aid kit must be maintained and made available for occupants of a camp car for the emergency treatment of an injured person.

(b) The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked at least weekly when the camp car is occupied to ensure that the expended items are replaced. The first aid kit shall contain, at a minimum, the following:

- (1) Two small gauze pads (at least 4 × 4 inches);
- (2) Two large gauze pads (at least 8 × 10 inches);
- (3) Two adhesive bandages;
- (4) Two triangular bandages;
- (5) One package of gauge roller bandage that is at least 2 inches wide;
- (6) Wound cleaning agent, such as sealed moistened towelettes;
- (7) One pair of scissors;
- (8) One set of tweezers;
- (9) One roll of adhesive tape;
- (10) Two pairs of latex gloves; and
- (11) One resuscitation mask.

(c) Each sleeping room shall be equipped with the following:

- (1) A functional portable Type ABC fire extinguisher; and

(2) Either a functional smoke alarm and a carbon monoxide alarm, or a functional combined smoke-carbon-monoxide alarm.

(d) Each camp car consist shall have an emergency preparedness plan prominently displayed so all occupants of the camp car consist can view it at their convenience. The plan shall address the following subjects for each location where the camp car consist is used to house railroad employees or MOW workers:

(1) The means used to be aware of and notify all occupants of impending weather threats, including thunderstorms, tornados, hurricanes, floods, and other major weather-related risks;

(2) Shelter-in-place and emergency and evacuation instructions for each of the specific threats identified; and

(3) The address and telephone number of the nearest emergency medical facility and directions on how to get there from the camp car consist.

### **§228.333 Remedial action.**

A railroad shall, within 24 hours after receiving a good faith notice from a camp car occupant or an employee labor organization representing camp car occupants or notice from a Federal Railroad Administration inspector, including a certified State inspector under part 212 of this chapter, of noncompliance with this subpart, correct each non-complying condition on the camp car or cease use of the camp car as sleeping quarters for each occupant. In the event that such a condition affects the safety or health of an occupant, such as, but not limited to, water, cooling, heating, or eating facilities, sanitation issues related to food storage, food handling or sewage disposal, vermin or pest infestation, or electrical hazards, the railroad must immediately upon notice provide alternative arrangements for housing and providing food to the employee or MOW worker until the condition adverse to the safety or health of the occupant(s) is corrected.

### **§228.335 Electronic recordkeeping.**

(a) Each railroad shall keep records as required by §228.323 either—

(1) On paper forms provided by the railroad, or

(2) By electronic means that conform with the requirements of subpart D of this part.

(b) Records required to be kept shall be made available to the Federal Railroad Administration as provided by 49 U.S.C. 20107.

